Clin. Lab. 2022;68:1-2

ORIGINAL ARTICLE

Prevalence and Antimicrobial Resistance of *Ureaplasma urealyticum* and *Mycoplasma hominis* in Patients with Genital Tract Infection in Jiangsu, China

Ruixiang Luo [#, 1], Kang Xun [#, 2], Lingli Zuo [1, 2], Feifei Sha [2], Yun Chen [1], Nong Yu [1], Donghua Jin [2], Yuxian Xie [2], Meiling He [*, 1, 2], Fang Liu [*, 1]

[#] *Ruixiang Luo and Kang Xun contributed equally to this work*
[1] *Department of Medical Microbiology, The People's Hospital of Suzhou New District, Suzhou, Jiangsu, P. R. China*
[2] *Department of Nephrology, The People's Hospital of Suzhou New District, Suzhou, Jiangsu, P. R. China*

SUMMARY

Background: **The aim of this study was to investigate the infection and antimicrobial resistance of *Ureaplasma urealyticum* (*U. urealyticum*) and *Mycoplasma hominis* (*M. hominis*) in patients with genital tract diseases in Jiangsu, China.**

Methods: **A total of 3,321 patients suspected with genital tract infectious diseases were enrolled in this study from September 2017 to September 2020. The *Mycoplasma* detection and antimicrobial susceptibility were tested using the commercially available *Mycoplasma* kit.**

Results: **Among the 3,321 specimens tested, 1,503 (45.3%) were positive for Mycoplasmas, and the proportion of mono-infection of *U. urealyticum* is highest (79.5%). The overall infection rate has been increasing in the past 3 years. The positive rate in females (68.7%) was higher than in males (25.0%), and the main infection age group was 20 - 39 (81.2%). Besides, *U. urealyticum* and *M. hominis* displayed relative lower resistance rates to gatifloxacin, josamycin, minocycline, and doxycycline (6.0%, 6.5%, 3.1%, and 3.2%, respectively). However, the antimicrobial resistance rates to azithromycin, clindamycin, roxithromycin, sparfloxacin, and ofloxacin were relatively high (45.4%, 42.1%, 34.9, 36.0, and 65.5%, respectively). Antimicrobial resistance of *U. urealyticum* and *M. hominis* to these 14 drugs have been changing in the past 3 years.**

Conclusions: **In total, these preliminary data showed the prevalence and antimicrobial resistance status of *U. urealyticum* and *M. hominis* in patients suspected with genital tract infectious diseases, which has use for reference on both prevention and treatment of diseases caused by them.**

(Clin. Lab. 2022;68:1-2. DOI: 10.7754/Clin.Lab.2021.210706)

Correspondence:
Meiling He and Fang Liu
Department of Medical Microbiology
The People's Hospital of
Suzhou New District No. 95
Hua Shan Road
Suzhou
Jiangsu 215000
P. R. China
Phone: + 86 512-69585033
Fax: + 86 512-69585033
Email: Meiling He: meilinghe8@163.com
Fang Liu: 296659564@qq.com

Manuscript accepted September 21, 2021

Supplementary Tables and Figures

Table S1. Trend of the positive rates of Mycoplasmas of males and females respectively in endocervical or urethral specimens each year.

Year	2017 - 2018	2018 - 2019	2019 - 2020
Positive cases (males)	76	185	185
Sample size (males)	418	704	661
Positive rates (males) (%)	18.2	26.3	28.0
Positive cases (females)	231	360	466
Sample size (females)	330	517	691
Positive rates (females) (%)	70	69.6	67.4